## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Defa ult Oper ator	Plurals	Time Stamp
L4	5	(track near2 etch\$4 with membrane) same carboxy\$4	US-PGPUB; USPAT	OR	ON	2011/02/17 14:11
S1	241	436/6.cds.	US-PGPUB; USPAT	OR	ON	2009/01/14 10:23
S2	56	S1 and membrane	US-PGPUB; USPAT	OR	ON	2009/01/14 10:23
S3	10	S2 and trans\$1membrane	US-PGPUB; USPAT	OR	ON	2009/01/14 10:23
S4	8	"6017742"	US-PGPUB; USPAT	OR	ON	2009/01/14 10:38
S5	2	"6472163"	US-PGPUB; USPAT	OR	ON	2009/01/14 10:39
S6	32	"5066401"	US-PGPUB; USPAT	OR	ON	2009/01/14 11:35
S7	27	("5066401").URPN.	USPAT	OR	ON	2009/01/14 11:35
S8	3744	capillary near2 membrane	US-PGPUB; USPAT	OR	ON	2009/01/14 13:03
S9	4234	capillary near2 membrane	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2009/01/14 13:03
S10	242	S9 and (carboxyl and anhydride)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2009/01/14 13:04
S11	101	S10 and (carbodiimide)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2009/01/14 13:04
S12	50	S11 and (thiol and amine)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2009/01/14 13:04
S13	80	"3857931"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2009/01/14 13:11
S14	3046	(EMR or enzyme near2 membrane near2 reactor)	US-PGPUB; USPAT	OR	ON	2009/01/14 15:02
S15	0	S14 and (functionalized with carboxyl)	US-PGPUB; USPAT	OR	ON	2009/01/14 15:02
S16	270	S14 and (carboxyl)	US-PGPUB; USPAT	OR	ON	2009/01/14 15:03

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S17	54	S16 and carbodiimide	US-PGPUB; USPAT	OR	ON	2009/01/14 15:03
S18	5411	436/164,181,524,528,531.cds.	US-PGPUB; USPAT	OR	ON	2009/01/14 16:08
S19	25	S18 and (capillary near2 pore)	US-PGPUB; USPAT	OR	ON	2009/01/14 16:08
S20	0	S18 and (rotrac)	US-PGPUB; USPAT	OR	ON	2009/01/14 16:09
S21	3 <b>8</b> 9	(track\$1etched or nuclear\$1track or rotrak or rotrac or capillary\$1pore)	US-PGPUB; USPAT	OR	ON	2009/01/14 16:10
S22	4	S21 and S18	US-PGPUB; USPAT	OR	ON	2009/01/14 16:11
S23	694	S18 and carbodiimide	US-PGPUB; USPAT	OR	ON	2009/01/14 16:12
S24	143	S23 and (carboxyl and thiol and amine)	US-PGPUB; USPAT	OR	ON	2009/01/14 16:13
S25	23	S21 and (carboxyl and thiol and amine)	US-PGPUB; USPAT	OR	ON	2009/01/14 16:14
S29	14	"4163714"	US-PGPUB; USPAT	OR	ON	2009/09/23 15:27
\$30	17	"5064866"	US-PGPUB; USPAT	OR	ON	2009/09/23 15:36
S31	628	((por\$4 near2 membrane) with (alter\$4 or modif\$5)) and (carboxyl)	US-PGPUB; USPAT	OR	ON	2009/09/23 15:43
S32	1	S31 and ((endogenous or inherent) with (carboxyl))	US-PGPUB; USPAT	OR	ON	2009/09/23 15:43
833	1	S31 and ((endogenous or inherent or original) with (carboxyl))	US-PGPUB; USPAT	OR	ON	2009/09/23 15:44
S34	7	S31 and ((endogenous or inherent or original) with (ligand))	US-PGPUB; USPAT	OR	ON	2009/09/23 15:44
S35	1	"4599364"	US-PGPUB; USPAT	OR	ON	2009/09/23 15:46
S36	3	(single near2 step) with surface with (modif\$6 or alter\$5) with (por\$4) with membrane	US-PGPUB; USPAT	OR	ON	2009/09/23 16:04
S37	5	(single near2 step) with surface with (modif\$6 or alter\$5) with membrane	US-PGPUB; USPAT	OR	ON	2009/09/23 16:05
\$38	91	(single near2 step) with surface with (modif\$6 or alter\$5)	US-PGPUB; USPAT	OR	ON	2009/09/23 16:06
S39	11	\$38 and ((capillary or por\$4) with membrane)	US-PGPUB; USPAT	OR	ON	2009/09/23 16:07
S40	3	S39 and carboxyl	US-PGPUB; USPAT	OR	ON	2009/09/23 16:07
S41	3	"2004064986"	US-PGPUB; USPAT; DERWENT	OR	OFF	2009/09/23 16:18

## EAST Search History (Prior Art)

S42	182	(modify or modification) with (membrane) with (passageway or pore)	US-PGPUB; USPAT	OR	OFF	2010/03/10 16:50
S43	47	S42 and (carboxyl)	US-PGPUB; USPAT	OR	OFF	2010/03/10 16:51
S44	4	S43 and (endogenous)	US-PGPUB; USPAT	OR	OFF	2010/03/10 16:51
S45	2725	(carbodiimide with reaction) same carboxyl	US-PGPUB; USPAT	OR	OFF	2010/03/10 16:53
S46	255	S45 and ((alter\$6 or modify or modification) with (membrane))	US-PGPUB; USPAT	OR	OFF	2010/03/10 16:54
S47	183	S46 and (transmembrane)	US-PGPUB; USPAT	OR	OFF	2010/03/10 16:54
S48	4	S45 and ((alter\$6 or modify or modification) with (membrane) with (passageway or pore))	US-PGPUB; USPAT	OR	ON	2010/03/10 16:54
S49	10	(modification or modify or alter\$6 or functionali\$5) with capillary with pore with membrane	US-PGPUB; USPAT	OR	ON	2010/03/10 17:28
S50	2	"20040173506"	US-PGPUB; USPAT	OR	OFF	2010/03/10 17:33
S51	100	(roy near2 hammerstedt) or (schwartz near2 stephen)	US-PGPUB; USPAT	OR	OFF	2010/08/25 10:15
S52	10	S51 and (carboxyl)	US-PGPUB; USPAT	OR	OFF	2010/08/25 10:15

## EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Defa ult Oper ator	Plurals	Time Stamp
S26	80	(membrane with carboxyl) same ((modif\$6 or alter\$5) with (surface))	US-PGPUB; USPAT; UPAD	OR	OFF	2009/09/17 10:36
S27	0	S26 and (endogenous with carboxyl)	US-PGPUB; USPAT; UPAD	OR	OFF	2009/09/17 10:36
S28	4	S≥6 and (capillary with membrane)	US-PGPUB; USPAT; UPAD	OR	OFF	2009/09/17 10:36